## **IN THE CLAIMS:**

- leaching residue or intermediate product containing iron and sulphur, which is generated in the atmospheric chloride leaching of a copper sulphide raw material, characterised in that comprising leaching the gold is leached from the residue or intermediate product in an aqueous solution of copper (II) chloride sodium chloride in atmospheric conditions with the aid of the bivalent copper contained in said solution and oxygen-containing gas, when keeping the oxidation-reduction potential of the suspension formed is kept at a value below 650 mV and the pH at a value of 1 3, whereby the iron and sulphur remain mainly undissolved; the dissolved gold is recovered by some known method and discarding the undissolved residue is as waste to be discarded.
- 2. (currently amended) A method according to claim 1, characterised in that wherein the oxidation reduction potential is kept in the range of 530 620 mV.
- 3. (currently amended) A method according to claim 1, eharacterised in that wherein the pH of the suspension is kept at a value of 1.5 2.5.
- 4. (currently amended) A method according to claim 1, eharacterised in that wherein the amount of bivalent copper in the suspension is 40 100 g/I.
- 5. (currently amended) A.method according to claim 1, characterised in that wherein the amount of sodium chloride in the suspension is 200 330 g/I.
- 6. (currently amended) A method according to claim 1, <del>characterised in that</del> wherein the temperature is kept in the range between 80°C and the boiling point of the suspension.
- 7. (currently amended) A method according to claim 1, characterised in that wherein the oxygen containing gas is air.

- 8. (currently amended) A method according to claim 1, <del>characterised in that wherein</del> the oxygen containing gas is oxygen-enriched air.
- 9. (currently amended) A method according to claim 1, <del>characterised in that wherein the oxygen containing gas is oxygen.</del>
- 10. (currently amended) A method according to claim 1, <del>characterised in that wherein</del> the dissolved gold is recovered using active carbon.
- 11. (currently amended) A method according to claim 1, eharacterised in that-wherein the dissolved gold is recovered by electrolysis.